

conception, and rendered by a well-sustained composition with a dramatic, yet chaste character. The execution is brilliant, as well in the correctness of forms as the hue of colour, and has quite enraptured the young Roman art-world, brought up, it is true, in a too puristic style of art. The great sacrifice of time and otherwise, which this picture has entailed on Mr. Schrader, makes us wish—concludes our Roman authority—"that this fine work be exhibited in England, where it will meet a generally felt desire, to see the history of this great people typified by art; the more so, as besides the lively approval of the Roman public, some substantial encouragement might accrue to deserving artists, choosing similar subjects for their art-scape."

The new Granary and Halls at Munich.—[From the Ausland].—It was to be expected, that the right valuation of architecture and art would sooner or later arise here—and the mere "playing with art," be supplanted by works bearing upon, and useful to the great mass of the nation. A huge public building is thus contemplated, where, besides an (imperatively called forth) granary, the necessary halls for the wholesale of grain, hops, wool, &c., in fact all bulky produce, of agriculture and husbandry, could be placed under the same roof. The undertakers are some of the rich burghesses of Munich, and the plans have been made and approved by some of the first architects. The length of this imposing pile for public utility is to be 1,200 feet. The corn hall, to occupy the centre, and extend to 200 feet by 100 feet. One end of the building to be occupied by the city scales (*Stadtwaage*), the other for *dépôts* of produce of every kind. Each of the latter localities to be 100 feet long and 60 feet broad. In the intervening halls, open on all sides, the different markets are to be established. For the easy access of waggons, carts, and the public, every care has been taken. As an especial advantage it is to be considered, that the ground for the building, belonging to the corporation, will be given *gratuitously*, and being situate near the Altstadt where the present corn-market (*Schranne*) is kept, the inhabitants of that quarter will not lose by the transfer. The locality is the large place of 1,500 feet in length, behind the Frounfeste and the Anger Church. Thus aside of king Ludwig's art-creations, a work of popular utility will arise such as no other city of Europe can boast of.

Novel Discovery about Egyptian Hieroglyphs.—A rather stormy debate has taken place at the Institute of France, on the discovery of Mr. de Löwenstein of a third variety or system of cuneiform inscriptions. Mr. Burnouf (M. J.) spoke to great extent on the final deciphering of Assyrian characters and language, which the recent discoveries of Mr. Layard have now made so popular. Mr. de Löwenstein thinks it co-generic with the Semitic and Coptic; and what is most remarkable, not only in form, but in its very system, analogous with Champollion's Phonetic Hieroglyphs.

Leipzig Central Association of Industry and Trades.—This very important commercial city has followed in the wake of Paris and Berlin in forming the above association—with the purpose of exhibiting engines, tools, and other industrial apparatus, as well as new discoveries of a general useful character, and to facilitate their introduction and sale. The association will carefully and impartially test every object submitted to them, and guarantee the solidity of the engines, &c., purchased of them. The society contemplates having agents in all principal places of Germany, to co-operate in the fostering and generalizing of useful technical objects.

THE TWOPENNY EXHIBITION OF ST. PAUL'S.—Earl Fitzwilliam having happened lately to be called upon to pay his twopenny like any sight-seer (by the way, are the bishops free, on the fellow showman principle?) the important twopenny question had the honour of being brought before the lords and bishops in parliament assembled; the right authority was most inopportunistly, though doubtless quite accidentally, absent, otherwise we hope the circumstance is significant of the right reverend reluctance to countenance, or shame to acknowledge, such a system of money-changing in the temple.

THE LATE MR. J. B. PAPWORTH.

THE death of Mr. John Buonarotti Papworth, late vice-president of the Royal Institute of British Architects, occurred on Wednesday 16th inst., at his residence, Park End, St. Neot's, whither he had retired after more than fifty years of professional practice. Early in life his excellent judgment and kind heart acquired for him the intimacy of the leading artists, and also the confidence of many wealthy amateurs, as to the direction of their patronage, as well as to the decoration of their mansions. In this course he aided materially in introducing a tasteful style of modern furniture, which caused his selection by Government for the trust of forming and directing the Somerset House School of Design. His works on garden and rural architecture, very favourably received by the public, were the results of his experience in landscape gardening, which he joined as a profession with his other art.

Amongst the clients to whom he owed an extremely varied practice, he numbered several of the late branches of the royal family, especially the Princess Charlotte, and also the present king of Wurtemberg, from whom he, having designed the palace and English park at Kaunstadt, received the appointment of architect to his majesty. His sons will have the satisfaction of remembering how highly Mr. Papworth was respected, not only by his friends and by his clients, but also by those severer judges, the members of his own profession, to whose gratifying token of their esteem we gave publicity at the commencement of the year.

ON THE GEOMETRIC SYSTEM.

APPLIED BY THE MEDIEVAL ARCHITECTS TO THE PROPORTIONS OF THEIR ECCLESIASTICAL STRUCTURES.

THE revival of the architecture of the middle ages within the last quarter of a century, in this country, may be fairly attributed to the clerical body, who, accustomed to meet in our cathedrals and ancient churches, gave preference to that style, then usually denominated Gothic; and where they had sufficient influence, induced local committees to adopt it for their new churches in all parts of the kingdom. The architects employed on these buildings, though generally well grounded in Greek and Roman architecture, found themselves called upon to construct works utterly at variance with Greek and Roman principles; and having no time to study or collect data, whereon to compose works in this (to them) new style, they were required at once to erect buildings equally at variance with its principles, in which the greatest number of sittings could be crowded into the smallest area, and adapt the fragments of the various mediæval styles to their utilitarian masses; thus, by compulsion, producing works truly Gothic. Galleries were at first required to be invariably 10 feet in clear height from the floor to the underside, whether the building was to contain five hundred or two thousand sittings, for which the pillars must of necessity be disproportionately lengthened, and the walls unduly raised, to admit of a flat ceiling, and allow ample space above the back of the gallery floor, this requiring a considerable elevation above the front to obtain a view of the pulpit and reading-desk, in their defined position on each side of a broad aisle in the centre of the building, the dimensions whereof were specified in printed instructions. All roofs were required to have horizontal tie-beams; and where clerestories and groined ceilings were introduced (the peculiar features of our cathedrals, abbeys, and collegiate churches), great additional expense was incurred. Many of our old parish churches of the fifteenth and sixteenth centuries have fine moulded oak tie-beam roofs; the beams, king-posts, and purlins moulded, and the triangular spaces between the beam-post and rafter filled in with moulded mullions, and arched or semi-arched, and cusped tracery; the purlins formed into panels by broad intermediate rafters, below the spans or lesser rafters; and on their intersections carved bosses improved the general effect. As these roofs were almost invariably concealed by flat plastered ceilings, they would be almost unknown, even to those who had but occasionally to enter them.

One of the best formed modern churches of plain character, having a spacious chancel, nave, and side aisles, vestries on each side of the chancel, and a western tower, open roofs with arched ribs and no tie-beams, was planned by and built at the sole expense of the late Rev. Hammond Roberson (Prebend of York), at Liversedge, in the parish of Birstal, in Yorkshire, in the year 1817; it is so proportioned as to admit of no galleries in the aisles, and the architect under whose superintendence it was erected (the late Thomas Taylor, of Leeds), never equalled this structure in the numerous churches which he subsequently built, having in all to provide sufficient height for side galleries.

It has been justly observed, that those who copied most closely, have produced the best Gothic works of the day. In the year 1818, in restoring the parapet and pinnacles of the parish church of Halifax, I copied the half decayed fragments which remained, and this my first attempt, is more satisfactory than any Gothic work I designed, till within the last five years. Having erected many churches in the North of England, before I rebuilt the parish church of Leeds for Dr. Hook, I worked without system—merely adapting ancient features to masses, to which I could give no just proportion. Subsequent to the erection of the Leeds parish church, I have visited many churches, and have read and examined attentively, Mr. Kerrich's essays in the "Archæologia," and have found his system to answer in the plans of some few churches of simple form. This theory of proportion is the Vesica Piscis, containing two equilateral triangles, but even this he has not carried out to its full extent, as two or three of his plans will explain; it is a minor portion only of the grand system. He justly considers this system to have been known at a very remote period, and applies it first to Ciampini's plan of St. John in the Lateran, a plain oblong square, with a semi-circular apse at one end; here the vesica gives the length and breadth *internally*; but in addition, I find the bases of a larger vesica, of which the length of the first is the radius, equal the diameter of the apse. He produces the plan of the old St. Peter's, at Rome, by a similar vesica; this has a small apse and two lateral projections or transepts: here the diameter of the apse is determined by the base of the two triangles forming the key vesica, and the transepts are produced from bases of the larger vesica, which is founded upon the two points or extreme length of the first: these taken on each side of the centre line, give the radius by which their length and breadth is determined. On this principle (part of the general system only), the relative proportions are obtained, and the several points both in extensions, divisions, and subdivisions, must be based upon the first figure. Mr. Kerrich gives examples of the simple oblong square, on the bases of the triangles, as Bainwell Church, in Cambridgeshire, little St. Mary's, at Cambridge, Chedgrave, in Norfolk, &c., which answers for the internal length and breadth of these and several small churches of the 12th, 13th, and 14th centuries. These parallelograms, in which piers and arches separate the chancel from the nave, are almost invariably subdivided by taking the breadth as radius, and on it, producing the vesica: thus is formed the chancel, sometimes within the walls and western arch, and at others extending to the western face of the arch in the nave; this, in either case, is indicated by the step into the chancel, and the variation was intended to conceal the principles on which the proportions were obtained. The church at Routh, near Beverley, is thus formed, and corresponds with those of Sancton Barnby, and several others, erected in the 13th century. Many of these small churches were built without the separation of the nave and chancel by piers and arches, but at the same proportionate distance from the east end, holes are formed in the walls, wherein wood has been inserted to secure the rood-screen or loft. Mr. Kerrich has given a plan of the chapel in the tower of London, where the vesica includes the apse, and other plans wherein the apse is excluded, as in Little Maplestead Church, in Essex, also Croyland Abbey, in Lincolnshire, and old Lincoln Cathedral, the plans being described in the "Archæologia," by the late Mr. James Essex. This applies to the Church of St. Anna, in Bruges, and many